

**REMARKS**

In the Final Office Action dated November 2, 2005, claims 1-26 are pending. Claims 1, 13, and 22 are independent claims from which all other claims depend therefrom. Claim 26 is herein canceled since it has been withdrawn from consideration as being deemed to be directed to a non-elected invention.

The Office Action's only newly presented argument for the continued rejection of claims 1-25 is provided in paragraph 18 of the Office Action. In paragraph 17, the Office Action states that the Applicant argues that Burl (U.S. Pat. No. 6,593,744 B2) fails to teach or suggest a primary magnet coil and an RF coil in housing 84 and that Burl's structure does not have a controller. In paragraph 18, the Office Action states that the Examiner disagrees with Applicant's argument because the claim language requires a housing for the support electronics and not for the magnet structure and that Burl (U.S. Pat. No. 6,593,744 B2) discloses a controller 44 connected to the electronics 70.

With respect to claims 1 and 13, Applicant submits that the argument of Burl failing to teach or suggest a primary magnet coil and an RF coil in housing 84 was not asserted to state what is claimed and not disclosed by Burl, but rather was asserted to express the relationship differences between the magnet structures, the housings, and the devices contained therein as claimed and the magnet structure, the housing 84, and the devices of Burl. Applicant in stating the above argument was rebutting the June 14<sup>th</sup> Office Action statement that the housing 84 and the magnet structure of Burl comprise a magnet structure and a RF coil assembly. Applicant attempted to show the relationship and structural differences between the housing 84 and elements of the system of Burl as compared to the housing(s) and elements of the systems claimed. With respect to claims 1 and 13, Applicant was not implying that the housing claimed had a superconducting magnet and a RF coil assembly. However, this assertion is appropriate for claim 22 in which a second housing is claimed that contains a

magnet structure with a superconducting magnet and a RF coil assembly contained therein which is also clearly unlike the system of Burl.

In providing the above-stated arguments the Applicant is also asserting that the housings claimed are not the same as either the magnet structure or the housing 84 of Burl. Note that the magnet structure of Burl contains a superconducting magnet, an RF coil assembly, and the shielding box 84. This is unlike the magnet structures claimed, which contain a superconducting magnet and an RF coil assembly. The housings claimed are external to and/or contain a magnet structure and are thus not contained by a magnet structure.

Also, note that the housings of claims 1 and 13 and the first housing of claim 22 each contain support electronics having a controller. The housing 84 of Burl does not contain a controller, but rather a RF cable trap. Applicant agrees that the sequence control 44 of Burl is indirectly connected to the housing 84. However, this is irrelevant since the controllers claimed are contained within the claimed housings and as such are protected by the radio frequency shields coupled thereto. Burl fails to disclose this novel arrangement. The sequence control 44 is not protected by the RF shielding of box 84.

Thus, Burl fails to teach or suggest each and every element of claims 1, 13, and 22. Also, since claims 2-6, 8-12, 14-17, 19-21, and 23-25 depend from claims 1, 13, and 22, respectively, they too are novel, nonobvious, and are in a condition for allowance for at least the same reasons.

The August 23<sup>rd</sup> Response also provided additional arguments for the allowability of claims 5, 7, 14, 18, 22, and 25. Applicant submits that the arguments remain valid have not been rebutted and are reiterated below along with additional argument for the allowance thereof.

With respect to claim 5, in paragraph 6, the Office Actions state that Burl discloses a housing that comprises imaging system support electronics that comprises at least one of a radio frequency amplifier, a gradient amplifier, a

timing device, an oscillator, a radio frequency transmitter, a gradient coil controller, and a sequence controller. Applicant traverses. Applicant assumes that the Examiner is referring to the housing 84. The housing 84 includes a channel 80, capacitors 82, 83, an inductor 116, and a shield 122, none of which are recited in claim 5. Notice that although Burl may disclose one or more of the items recited in claim 5, that the items of Burl, namely items 10, 20, 38, 24, 40, 42, 44, 50, 52, 54, and 56, are external to both the bore type magnet structure and the housing 84 of Burl.

With respect to claim 14, in paragraph 9, the Office Actions state that Burl discloses a second housing that contains a magnet structure, and in doing so refers to the vacuum vessels of Burl. Applicant agrees that Burl discloses a vacuum vessel that contains a primary magnet. Applicant disagrees that the vacuum vessels of Burl contain the bore type magnet structure. Note that the second housing claimed contains the magnet structure, which contains the superconducting magnet and the RF coil assembly. The vacuum vessels of Burl do not contain a magnet structure as claimed. The vacuum vessels of Burl contain a superconducting magnet, but do not contain a RF coil assembly. Although the RF coil assembly of Burl is within the patient opening or toroidal opening of the vacuum vessels, it is not contained within and is thus external to the vacuum vessels.

The Office Action also states that the first housing and the second housing are integrally formed as a single housing. Applicant again assumes that the first housing referred to is the housing 84. Applicant traverses and submits that the vacuum vessels of Burl are not integrally formed as a single housing with the housing 84. The housing 84 is separate and is not even in contact with the vacuum vessels of Burl. The vacuum vessels of Burl contain the primary magnet and do not contain the housing 84. This can also be readily seen in Figure 1.

Claim 22 recites the limitations of a first housing that contains imaging system support electronics with one or more of a radio frequency amplifier, a

gradient amplifier, a timing device, an oscillator, a radio frequency transmitter, a gradient coil controller, a microprocessor, and a sequence controller. A second housing is integrally formed with the first housing and contains a magnet structure, which is separate from the first housing. The magnet structure generates a magnetic field and includes a superconducting magnet, a gradient coil assembly, and a radio frequency receiver coil. A radio frequency shield is coupled within the first housing, encases the support electronics, and prevents radio frequency interference between the support electronics and the radio frequency receiver coil.

Burl fails to teach or suggest a first housing that contains imaging system support electronics with one or more of a radio frequency amplifier, a gradient amplifier, a timing device, an oscillator, a radio frequency transmitter, a gradient coil controller, and a sequence controller and a second housing that is integrally formed with the first housing and contains a magnet structure, which is separate from the first housing. See arguments above and notice that items designated as 10, 20, 38, 24, 40, 42, 44, 50, 52, 54, and 56 are external to the bore type magnet structure, the vacuum vessels, and the housing 84 of Burl. Also, note that none of the items 10, 20, 38, 24, 40, 42, 44, 50, 52, 54, and 56 are encased by an RF shield.

With respect to claim 25, in paragraph 11, the Office Action states that the housing does not contain the magnet structure. Note that this contradicts what is stated in paragraph 2 of the Office Action, which states that Burl discloses a housing that comprises a magnet structure, since both statements refer to the housing 84.

Thus, claims 5, 14, and 22 are further novel and nonobvious for the above-stated reasons.

Claims 7 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Burl in view of Ladebeck (U.S. Pat. No. 5,994,903).

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Applicant submits that since claims 7 and 18 depend from claims 1 and 13, respectively, they are also novel, nonobvious, and are in a condition for allowance for at least the same reasons as put forth above.

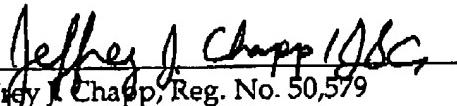
Ladebeck, like Burl, also fails to teach or suggest a magnet structure and a housing, the magnet structure containing a superconducting magnet and an RF coil assembly and the housing attached to and external from the magnet structure and containing imaging system support electronics having a controller and not a RF coil assembly. Ladebeck fails to disclose an RF coil assembly contained within a magnet structure, imaging system support electronics, imaging system support electronics having a controller, and a housing that contains imaging system support electronics. Thus, Applicant submits that Burl and Ladebeck fail to teach or suggest each and every limitation of claims 7 and 18, therefore, claims 7 and 18 are novel, nonobvious, and are in a condition for allowance.

In light of the remarks, Applicant submits that all of the objections and rejections are now overcome. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, the Examiner is respectfully requested to contact the undersigned attorney.

The Commissioner is hereby authorized to charge any additional fee, which may be required or credit any overpayment to Deposit Account No. 50-0476.

Respectfully submitted,

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